

REMARKS

In the Office Action dated August 13, 2003, claims 1-31 were presented for examination. Claims 1, 13 and 22 were rejected under 35 U.S.C. §102(b) as being anticipated by *Jippo*, U.S. Patent No. 5,432,915. Claims 2-12, 14-21, and 23-31 were objected to as being dependent upon a rejected base claims, and would be allowable if rewritten in independent form to include all of the limitation of the base claim and any intervening claims.

Applicant wishes to thank the Examiner for the careful and thorough review and action on the merits in this application. The following remarks are provided in support of the pending claims and responsive to the Office Action of August 13, 2003 for the pending application.

On November 12, 2003, Examiner Huynh, Examiner Dang, and Applicant's Attorney met for an Examiner's Interview. During the interview, claims 1, 13, and 22 were discussed. More specifically, the organization of the processors of Applicant's invention with respect to the layout of the processors of *Jippo* ('915). Applicant's Attorney stated that Applicant's processor are arranged in a hierarchy. Examiner Huynh responded with a position that a grouping of processors is equivalent to a hierarchy. In addition, the groups of locks claimed by Applicant were discussed. Specifically, an interruptible lock and a lock which waits using only local memory. Examiner Huynh took the position that a lock request assumes an interruption of another lock, and that a lock in a storage unit is equivalent to a lock using local memory. Applicant's Attorney reminded Examiner Huynh that the rejection provided in the First Office Action was based on 35 U.S.C. §102(b). Finally, the element of the rejected claims pertaining to the processing of the lock responsive to the hierarchy was discussed. Examiner Huynh asserted her position that *Jippo* grants locks on a first come first serve basis, and that such a process is responsive to the hierarchy of the processors. Applicant's Attorney expressly disagreed with Examiner Huynh and the position she has asserted.

In the Office Action of August 13, 2003, the Examiner assigned to the application rejected claims 1, 13 and 22 under 35 U.S.C. §102(b) as being anticipated by *Jippo* ('915). The

Jippo patent ('915) relates to an interprocessor communication system. More specifically, *Jippo* shows first and second processor groups. The first processor group contains a control processor unit and an IO processor unit. The first processor group has a control storage unit with the first and third locks stored therein. The second processor group contains four execution processor units. The second processor group has a control storage unit with a second lock stored therein. Communication among the processor groups and execution processor units is enabled through the use of buses. Lock and unlock requests are transmitted to the respective units through the associated buses and are assigned on a first-come first-serve basis.

Applicant's processors are organized into a hierarchy to enable a lock to be passed to a waiting process on an intra-quad basis when appropriate, and passed to a waiting processor on an inter-quad basis when a particular quad has been monopolizing the lock for an extended period of time. This hierarchical ranking of the processors together with processing the lock responsive to the hierarchy enables equitable access to and distribution of the lock in a heavy contention environment and thereby increases the efficiency of the system over the prior art. Accordingly, the hierarchical design of Applicant's processors together with the processing of the lock responsive to the Applicant's hierarchy enables the processors to achieve increased performance at both low and high levels of contention.

There is no teaching in *Jippo* for organizing any of the processors into a hierarchy or for processing a lock responsive to the hierarchy. A hierarchy is defined as "any arrangement of principles, things etc. in an ascending or descending order."¹ Rather, in *Jippo* the control processor unit (10) and the IO processor unit (11) are placed in one group, and the execution processor units (12-15) are placed in a second group. Col. 4, lines 53-57. A group is defined as "a number of persons or things classed together"². *Jippo* merely provides for two groups of processors, but does not provide for an ordering of the groups or the processors within the groups. By definition, such an ordering is required in order to have a hierarchical system. There

¹WEBSTER'S DICTIONARY 456 (encyclopedic ed. 1989), attached as Exhibit A.

²WEBSTER'S DICTIONARY 425 (encyclopedic ed. 1989), attached as Exhibit B.

is no provision in *Jippo* for giving priority for access to locks to one group over the other based on an assigned hierarchy. Accordingly, *Jippo* neither teaches nor implies Applicant's claimed invention as *Jippo* does not provide for an assigned hierarchical system as claimed by Applicant.

Furthermore, as Examiner Huynh acknowledged during the interview, the lock requests in *Jippo* are processed on a first come first serve basis. Applicant specifically claims that it's locks are processed responsive to the hierarchy, not on a first come first serve basis. More specifically, in Applicant's invention the placement of the processor requesting the lock in view of the hierarchical organization of the processors is determinative of processing of the lock. The locks of *Jippo* are merely responsive to a lock request and the locking and unlocking of the locking circuits. See Col. 5, lines 56-68 - Col. 6, line 1, and Col. 6, lines 13-18. Therefore, the locks of *Jippo* are not responsive to a hierarchy of processors, as the injection of such a hierarchical system into *Jippo* would in fact contradict *Jippo*'s very own stated system of assigning locks on a first come first serve basis. Accordingly, *Jippo* does not teach the hierarchical organization of the processors or a lock primitive for processing the lock responsive to the hierarchy of the processors, as such teaching would contradict *Jippo*'s lock assignment schema of assigning locks on a first come first serve basis.

In addition to *Jippo*'s lack of a hierarchical system, there is no teaching in *Jippo* for a lock that is interruptible. The locking circuit of *Jippo* cannot be interrupted. *Jippo* provides that a processor waiting for a lock must process a lock request and then wait for an unlock request to be generated. See Col. 6, lines 29-36. The fact that a processor may request a lock does not imply that the lock is interrupted. Rather, a lock request merely implies that the processor has a need for a lock. As *Jippo* provides for lock assignment on a first come first serve basis, it can reasonably be implied that a lock request merely queues the processors requests and provides that the requesting processor(es) await release of a lock so that the next processor in order of request (on a first come first serve basis) may then have the lock assigned to it. Accordingly, *Jippo* neither teaches nor implies an interruptible lock as taught and claimed by Applicant.

Additionally, there is no teaching in *Jippo* for a lock which waits for a lock to become

available using only memory local to the waiting processor. As represented in *Jippo*, the first and third locks of *Jippo* are in a control storage unit (16), and the second lock is in an operation storage unit (17). Even if for argument purposes the storage units (16) and (17) are presumed to be local to their respective processor group, storage unit (16) is remote to the second processor group and storage unit (17) is remote to the first processor group. Since each of the locks is accessible by each of the processors in both of the processor groups, *Jippo* does not distinguish between the use of local or remote memory and as such allows for a processor to wait using any available memory without limitation on location. Applicant's claimed invention provides that a processor waiting access to a lock only utilize that processor's local memory to maintain higher efficiency in the system. As there may always be a processor requesting a lock that is in a remote memory location, Applicant's system would differentiate between the lock requests based on the location of the processor and memory and provide priority to the local memory as a means of maintaining the efficiency of the system. Accordingly, *Jippo* neither teaches or implies Applicant's limitations of processor function that awaits a lock using only local memory.

In order for the claimed invention to be anticipated under 35 U.S.C. §102(b), the prior art must teach all claimed limitations presented by the claimed invention. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F. 2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987)). As mentioned above, *Jippo* does not show all of the elements as claimed by Applicant in pending claims 1, 13, and 22. Specifically, *Jippo* does not show a hierarchical grouping of processors, rather *Jippo* merely shows a grouping of processors without any differentiation between the groups. In addition, the lock of *Jippo* is processed on a first come first serve basis, a position that was also taken by Examiner Huynh during the interview which does not allow for a hierarchical system that would provide for lock requests to be taken out of order of the request. Applicant's lock is processed with consideration of the hierarchical grouping of the processors (*i.e.* not in a first come first serve order). Accordingly, *Jippo* clearly fails to teach the limitations pertaining to the hierarchical grouping of the processors as well the processing of the lock responsive to the hierarchical grouping of the processors as presented in Applicant's pending claims 1, 13 and 22.

Finally, “[a] previous patent anticipates a purported invention only where, except for insubstantial differences, it contains *all* of the same elements operating in the same fashion to perform an identical function.” *Saunders v. Air-Flo Co.*, 646 F.2d 1201, 1203 (7th Cir. 1981) citing *Popeil Brothers, Inc. v. Schick Electric, Inc.*, 494 F. 2d 162, 164 (7th Cir. 1974) (holding patents were not invalid as being anticipated by or obvious in light of prior art) (*emphasis added*). *Jippo* does not anticipate the invention of Applicant based upon the legal definition of anticipation. Although the prior art cited by the Examiner relates to processors and locks associated therewith, *Jippo* fails to show each and every element as presented in Applicant’s claimed invention. In fact, *Jippo* does not show processing a lock responsive to the hierarchy of the processors, the use of interruptible locks, or awaiting access to locks only on local memory. Rather, *Jippo* shows processing a lock on a first come first serve basis which conflicts with each of those claimed elements. Accordingly, Applicant respectfully requests the Examiner to remove the rejection of claims 1, 13 and 22, and to provide allowance of this application.

For the reasons outlined above, withdrawal of the rejection of record and an allowance of this application are respectfully requested.

Respectfully submitted,

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hexameter

hexameter (həksem'itər) n. a line or verse of six metrical feet, esp. as used in Greek and Latin heroic poetry. The first four feet are dactyls, the fifth is usually a dactyl (if so, the fourth is a dactyl) and the sixth a spondee or trochee hexametric (həksem'itrik) adj. [fr. Gk *hex*, six + *metron*, measure]

hexaethylene-tetraamine (həksemētē-trā'mēn) n. [$\text{C}_6\text{H}_{12}\text{N}_4$] (chem.) crystalline compound of methanediimine and ammonia used as a polymer tract antiseptic, a diuretic, in explosives and in vulcanizing rubber. also methenamine hexamine

hexane (hək'sēn) n. (chem.) any of five volatile aliphatic hydrocarbons having the formula C_6H_{14} . [fr. Gk *hex*, six]

hexapla (hək'splə) the six-columned version of the Old Testament compiled by Origen. Parallel to the Hebrew text were five others, including the Septuagint. It represents an early attempt to establish an authoritative biblical text. It survives only in fragments [Gk fr. *hex*, six; *platos*, sixfold]

hexapod (hək'spōd) 1. n. an animal with six legs, a true insect 2. adj., having six legs hexapodus (hək'spōdəs) adj. [fr. Gk *Ahexapous* (hexapodus), adj., sixfooted]

hexapody (hək'spōdē) pl. hexapodes n. a line or verse of six metrical feet [fr. Gk *hex*, six; *podos*, sixfooted]

hexateuch (hək'stik) n. (A.M.) the first six books of the Old Testament (Genesis, Exodus, Leviticus, Numbers, Deuteronomy, Joshua) [fr. Gk *hex*, six + *teuchos*, book (after STAEVUCH)]

hexavalent (hək'səvəlēnt) adj. (chem.) having a valence of six [cf. SEXTAVALENT] [fr. Gk *hex*, six + L. *valere*, to be strong]

hexose (hək'sōs) n. (chem.) any polyosecide which hydrolyzes to yield hexoses [HEX-

hexose (hək'sōs) n. (chem.) one of a group of monosaccharides with six carbon atoms in the molecule, e.g. glucose, fructose [fr. Gk *hex*, six]

hexyl (hək'sil) n. (chem.) any alkyl radical with the formula C_6H_{13} , esp. $\text{CH}_3(\text{CH}_2)_4\text{CH}_2-$ [fr. Gk *hex*, six + *hyle*, material]

hex (həks) interj. used to hail someone or to concentrate with him [origin unknown]

heyday (hē'dā) n. a time of greatest prosperity and vigor [perh. fr. archaic *hey-day*, exclamation of joy]

Hedaum (hēd'ūm), Jan van der (1637-1712), Dutch architectural and landscape painter

Hedda Dahl (hēd'ā däl'), Thor (1914-), Norwegian anthropologist and explorer. His "Kon Tiki" expedition (1947) intended to prove the possibility of a pre-Columbian east-west migration of Amerindians to Polynesia across the S. Pacific. His "Ra II" expedition (1970) intended to prove the possibility that Ancient Egyptians reached America across the Atlantic in papyrus boats

Hedward (hēd'wārd), (Edwin) Dubois (1885-1960), U.S. novelist, dramatist, and poet. His best-known works depict black life. His novel "Porgy" (1925) was dramatized (1927) by himself and his wife Dorothy, produced (1935) as the opera "Porgy and Bess" (George Gershwin provided the music and Ira Gershwin the lyrics), and presented (1959) as a movie

Hedwood (hēd'wōd), John (c. 1497-c. 1580), English writer, the author of comic interludes, e.g. "The Fourth P.P." (c. 1545), short one-act plays which were probably presented at court entertainments

Hedwood, Thomas (c. 1570-1641), English dramatist, whose works include "A Woman Like with Kindness" (1607) and "Edward the Fourth" (1599)

Hedwīd-ah (hēd'wīd'ə) (d. c. 698 B.C.), king of Judah (c. 727-c. 698 B.C.). His reign was marked by two invasions by Sennacherib of Assyria

Hé-heur (héf'shōr) n. (mill) 1. the specific hour on D-day in which hostilities commence 2. the specific hour in which a planned operation commences

hé-hé-tus (hēh'ētēs) pl. hé-hé-tuses, hé-hé-ton n. a break or pause in the continuity of action, speech, writing etc., esp. a pause between adjacent vowels in order that both may be pronounced [L. fr. *hinc* (*hincus*), to gape]

Hé-wāi-thé (hēwā'ēthē, hēwā'ēthē) (he makes rivers), a legendary North American Indian chief. He symbolizes civilization and progress

CONCISE PRONUNCIATION KEY: (A) a, cat; (E) e, eat; (I) i, in; (O) o, on; (U) oo, out; (Y) oo, goat; (U, oo, royal); (E, oo, sawas) a, aeronautics; i, ink; r, fish; s, as in sawas; t, tooth; u, poor; oo, royal

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hierophant

and serves as the magical protector of mankind against the evil forces in nature

hibakusha (hībākūshā) (Japanese) survivor of Hiroshima and Nagasaki nuclear bombings in 1945

hibernal (hībōrn'l) adj. (rheth.) of winter, winterly [fr. L. *hibernalis* fr. *hibernia*] hibernation (hībōrnā'shōn) n. pres. part. hibernating past and past part. hibernated v.i. to spend the winter in a torpid state, with all the body functions greatly slowed down and the body temperature reduced to just above 22°F. [opp. AESTERATE] hibernation n. [fr. L. *hibernare* (*hibernatus*), to winter]

hibernian (hībōrn'ēān) L. n. (*rheth.*) an Irishman 2. adj. (*rheth.*) pertaining to Ireland [fr. L. *Hibernia*, Ireland fr. Old Cel.]

hibiscus (hībīskus, hībīskēs) n. a member of *Hibiscus*, fam. Malvaceae, a genus of shrubs

native to tropical and semi-tropical areas that are cultivated for their ornamental flowers [L. fr. Gk *hibiskos*, some member of Malvaceae]

hiccup, hic-cough (hīk'up) 1. n. a sudden, spasmodic contraction of the diaphragm and audible closing of the glottis when breathing in [an attack of this] 2. (securities) a stock market decline of short duration 3. v.i. pres. part. hiccuping, hiccupping, hic-coughing past and past part. hiccuped, hic-cupped, hic-coughed to make the sound of a hiccup [imit.]

hiccup (hīk'up) 1. n. a city-dweller's derivative term; an uncomely yokel 2. adj. of or like such a person [a form of Richard]

Hickam-Joo Amendment (hīkām-jō) an act of the U.S. Congress amending (1962) the Foreign Service Act. It calls for the suspension within six months of U.S. economic aid to any government which expropriates the property of a U.S. company, unless negotiations holding promise of fair compensation are in progress

Hickok (hīk'ök), James Butler ("Wild Bill") (1837-76), U.S. marshal, Civil War Union scout, and fighter of Indians. His many encounters with outlaws include the gunning-down (1861) of the McCandles gang at Rock Creek Station, Neb.

hickory (hīk'ērē, hīk'ērē) 1. n. a member of *Carya*, fam. Juglandaceae, a genus of American trees cultivated for their hardwood and for the edible nuts of certain species (e.g. pecan, shagbark) 2. adj. made of hickory [shortened fr. Virginian *poucoohicova*, liquor from kernels of the hickory nut]

Hicks (hīks), Elias (1748-1830), U.S. Quaker and abolitionist, who advocated a boycott on all products of slave labor and the establishment of a home in the Southwest for freed slaves. After a Quaker schism (1827-8) in America, the orthodox party labeled his followers ("Hicksites") heretics

hid past and alt. past part. of HIDE

Hidalgo (hīdāl'gō) an inland central plateau state (area, 8,103 sq. miles, pop. 1,405,000) of Mexico. The mountainous north and east reach 10,540 ft. The southern and western plateau areas slope to lowlands (a textile industry center). Capital: Pachuca (an archaeological site, *MEXICAN ART). Agricultural products: rice, cereals, coffee, sugar for pulque, peppers, tobacco, fibers and woods. Silver, gold, mercury, copper, iron and lead are mined. Thermal springs

hidalgo (hīdāl'gō) n. a Spaniard belonging to the lowest order of the nobility [Span. *fr. Aijo de algo*, son of something]

Hidalgo y Costilla (hīdāl'gōy kōstēlā), Miguel (1753-1811), Mexican priest and revolutionist. He began (1810) the Mexican revolt against Spanish rule but, after initial success, was captured by the Spaniards and shot

hidden alt. past part. of HIDE 1. adj. concealed hidden tax (economics) 1. a tax whose incidence falls remotely from the point at which it is applied 2. a cost created by the government but not collected as a tax e.g., regulations costly to administer, inflation, etc

hide (hīd) 1. v. pres. part. hiding past hid (hid) past part. hid-den (hīd'n), hid v.i. to put or keep (something) out of sight, hidden treasure 2. to keep (something) from the knowledge of others, she hid her fears and her savings from him 3. v.i. to block the view of, trees hide the house 4. v.i. to keep out of sight, he hid his face in his hands 5. v.i. to cover, he hid the book under the bed

hide-and-seek (hīd'ānd'sēk) n. a children's game in which the players hide and one player tries to find them

hideaway (hīd'āwāy) n. a place to hide in esp. so as to get away from social life for a while

hide-bound (hīd'bōund) adj. narrow-minded and conservative 1. (of cattle) having the hide clinging closely to the flesh

hideous (hīd'ōs) adj. so ugly as to be repulsive

fearful, dreadful, a hideous crime 2. (pop.) very unattractive [M.E. *hides* fr. A.F.]

hideout (hīd'ōut) n. a hiding place for a criminal, a rebel, or children in play

Hidemitsu Toyotomi (hīdēmūtsū tōyōtōmō) (c. 1538-96), Japanese general and dictator

He completed the unification of Japan, and conquered Korea (1592)

hiding (hīd'īng) n. (with 'in' or 'into') the condition of keeping out of sight of people who are or

may be looking for one, to stay in hiding

hidding n. (pop.) a flogging [fr. Old Fr. *hider* v., to flog]

hidrosis (hīdrōsēs) hidrōsis (hīdrōsēs) n. (med.) perspiration [Mod. L. fr. Gk *hidrosis*, sweat]

hidrotic (hīdrōtik, hidrōtik) adj. causing perspiration [fr. M.L. *hidroticus* fr. Gk *hidros* (hidrōtēs), sweat]

hidro (hīdro) v.i. to go off with haste 1. v.t. to cause (oneself) to go off with haste [O.E. *higian*, to strive, be eager, pant]

hierarchy (hīerōärē) (hīerōärk) n. a member of

the hierarchy of a religious body hierarchic, hierarchical adj. of or relating to a hierarchy or hierarchy [fr. M.L. *hierarchia*]

hierarchy (hīerōärk, hīerōärk) pl. hierarchies

a group of priests holding high office

within an organized religion and having graded authority to govern the organization 2. the group of persons in any organization vested with power and authority 3. any arrangement of principles, things etc. in an ascending or descending order (e.g. in logic or science) 4. (theol.) the angels as classified in nine orders (*ANGEL)

[M.E. fr. O.F. fr. L.L. fr. Gk *hierarchia*]

hieratic (hīerätik, hīerätk) adj. priestly, pertaining to the priesthood 2. of an abridged and slightly cursive form of hieroglyphics used

in some Egyptian records, chiefly kept by the priests 3. of an art style (e.g. early Egyptian and Greek) in which traditional religious styles were carried on conventionally [fr. L. fr. Gk *hieratikos*]

hierocracy (hīerōkräsē, hīerōkrosē) pl. hierocracies n. government by priests [fr. Gk *hiero*, sacred + *kratos*, power]

hieroglyph (hīerōglif, hīerōglif) n. a character used in hieroglyphics

hieroglyphic (hīerōglifik, hīerōglifik) 1. adj. of or written in hieroglyphs 2. n. (pl.) a method of writing in which a symbol, usually pictorial, represents a word, syllable or sound, used by the Mayas, the Aztecs and others 3. such a symbol 4. drawing or marks used to convey a secret meaning [fr. F. *hieroglyphe* or L.L. *hieroglyphicus* fr. Gk *hiero*, sacred + *gluphe*, carving]

—Egyptian hieroglyphics, a series of miniature drawings of men, animals and objects, evolved

c. 3000 B.C. They were deciphered after the discovery (1799) of the Rosetta stone (*CHAMPOLION, *YOUNG, Thomas). One form of Cretan hieroglyphics, Linear B, was deciphered (1963) by Ventris. Other Cretan scripts remain to be deciphered, as do those of the Hittites, Aztecs and the Mayas. Chinese writing (*IDEOGRAM) was originally a form of hieroglyphics

Hiero I (hīerō) (d. 486 B.C.), tyrant of Syracuse (478-466 B.C.)

Hiero II (c. 306-215 B.C.), tyrant of Syracuse (c. 270-215 B.C.). He encouraged Archimedes in the designing of engines of war

Hieronymus (hīerōñmūs, hīerōñmik) adj. pertaining to or written by St Jerome [fr. L. *Hieronymus*, Jerome]

Hieronymite (hīerōñmīt, hīerōñmīt) n. a member of a monastic order named after St Jerome [fr. L. *Hieronymus*, Jerome]

hierophant (hīerōfānt, hīerōfānt) n. someone who explains or teaches the mysteries of a religion 2. a priest, esp. one associated with the Eleusinian mysteries (*KLEUSIS) bi-

SECRET AVAILARIE COPY ia, deer; ee, bear. (i) i, fish; ai, tiger; ee, bird; oo, lock; o, think; ô, bother; z, Zen; ɔ, courage; ɔ̄, sawas; ɔ̄̄, aeronautics; ɔ̄̄̄, sawas; ɔ̄̄̄̄, aeronautics

PAGE 11/13 * RCV'D AT 2/5/2004 4:37:53 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNI:3729306 * CSID:301 948 7774 * DURATION (mm:ss):04:46

groundwater

groundwater (groundwater, grundwater) n. water beneath the land surface that feeds wells and springs and maintains the level of rivers and lakes in dry weather

ground wave a radio wave transmitted along the earth's surface (cf. SKY WAVE)

ground wire (elec.) a wire making a ground connection

ground-work (groundwork) n. a foundation, basis [essential basic labor or study] the background to an embroidered or other pattern etc.

ground zero the point on the surface of the ground or water at which or immediately below or above which an atomic bomb explodes

group (group) 1. n. a number of people or things gathered closely together and considered as a whole, *the crowd split up into smaller groups* [an organized body of people with a common purpose, a research group] a number of persons or things classed together, a group of languages [geol.] a system of rocks dating from a specified era [chem.] a radical, a methyl group] one of eight major divisions of the periodic table (the vertical columns as it is usually constructed) containing elements whose atomic numbers bear a special periodic relation to each other and whose properties are closely related (e.g. halogens, inert gases, cf. PERIOD) 2. (math.) a set of elements and an operation (e.g. addition, multiplication or a symmetry operation) that obey the axioms of a group ("GROUP THEORY") [in scientific classification] a cross-division falling outside the regular system [a blood group] [art, photog.] two or more figures or objects forming a compositional whole [an organizational unit in the R.A.F., combining a number of stations] a unit of an echelon in the U.S. Air Force next above a squadron 2. v.t. to put into groups [to arrange artistically, a well-grouped composition] to classify [v.t. to form a group [fr. F. groupe fr. Ital. prob. fr. Grec.]

group captain an officer in the British Royal Air Force ranking below an air commodore and above a wing commander

groupie (groupie) pl. groupies, grouper n. any of several members of Serranidae, a family of tropical fish common in warm seas (esp. the Caribbean), esp. a member of genera *Spinephorus*, *Lux* or *Myceroperca* [fr. Port. *garupa*]

groupie (group*ie*) n. 1. a follower of famous people, esp. a teenage follower of a rock 'n' roll singer. 2. a woman who follows celebrities for sexual association. Cf. TEENY BOPPER

Group of 5 the five major non-Communist economic powers: the U.S., West Germany, Great Britain, Japan, and France

Group of 77 group of developing countries that has its origins in the "Cancún of '76," developing countries organized preparatory to UNCTAD (United Nations Conference on Trade and Development, 1964) and expanded by two members to issue a "Joint Declaration of the 77 Developing Countries"

Group of 20 the Interim Committee of Finance Ministers of the International Monetary Fund (IMF) composed of the finance ministers of the five wealthiest IMF members. Cf. GROUP OF FIVE

Group of 24 a group formed in 1971 of finance ministers from the 24 developing-country members of the International Monetary Fund, representing eight countries from each of the African, Asian, and Latin American country groupings in the Group of 77

group theory 1. (nuclear phys.) method of studying neutron diffusion in a reactor core based on approximating the velocity of a member of a group. 2. (math.) study of classification of finite groups and the structure of all groups

group therapy (psych.) therapeutic technique in which a group of people meet regularly under direction of a trained leader to exchange experiences and interpersonal reactions to aid in understanding themselves

groupthink (group ink |) n. 1. process of analyzing problems by a group with special talents. 2. accepting without questioning the predominant views on social, political, and ethical matters

groupuscule (groupsucle) n. a minor group

grouse (grous) 1. v.t. pres. part. grousing past and past part. grouzed to grumble 2. n. a fit of grumbling [origin unknown]

grouse pt. grouse n. any of several game birds of fam. *Tetraonidae*, having plump bodies and feathered legs ("CAPECAILLE," "PTARMIGAN,

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"RED GROUSE," "RUFFED GROUSE") [origin unknown]

groat (grout) 1. n. thin mortar for filling cracks or spaces under pressure 2. v.t. to fill up with groat (O.E. grut, coarse meal)

grove (grouv) n. a group of trees without undergrowth growing naturally as if arranged by man 1. (of certain trees) an orchard, an orange grove

grovel (groval, graval) pres. part. groveling, esp. Br. groveling past and past part. groveled, esp. Br. grovelled v.t. to lie face down or crouch or crawl at someone's feet as if begging for mercy or favor 1. to chase oneself abjectly 2. to take pleasure in what is base, wallow groveling, esp. Br. groveling adj. abject 1. obsequious [back-formation fr. M.E. grovelynge adv., prob. fr. O.N. *grœfa*, on the face]

grow (grow) pres. part. growing, past grew (grow) past part. grown (grown) v.t. to exist or develop as a living plant 1. to be cultivated, rice grown in China 2. to increase in size as a living organism 3. to increase in any way, become larger, support *grow steadily for our policies* 1. to become gradually, to grow old, *it grew dark, you will grow used to it* 1. (with the infin.) to come to, he grew to like her after a while 2. v.t. to cause to grow, cultivate, to grow vegetables 3. to allow to grow, to grow a beard 4. to develop, he has grown a habit of switching his nose to grow into to become, she grew into a fine girl 5. to grow to fit (clothes) to grow on (or upon) to win favor with gradually, you may not like it at first but it grows on you to grow out of to become too big for, to grow out of one's clothes 6. to abandon in the process of maturing, to grow out of childhood habits 7. to stem from, have as source, assertiveness may grow out of feelings of insecurity to grow together to become united by growth to grow up to reach adulthood 8. to become prevalent, the custom grew up of sacrificing to a god grower n. a plant that grows in a specified way, a fast grower 9. person who grows vegetables etc., a distinguished from a distributor [O.E. *grawan*]

growing pains pains in the limbs of children, popularly associated with growing 1. early difficulties in the development of an organization, project etc.

growl (grawl) 1. n.i. to make the characteristic threatening guttural sound of a dog 1. v.t. to utter in a growl, rumbling voice, esp. angrily 2. n. the sound made in growling growler n. (Br., pop.) a four-wheeled horse-drawn cab 1. a small iceberg [imit.]

grown past part. of grow 1. adj. having reached full size and maturity

grown-up 1. (groupup) adj. adult, past adolescence 2. (groupup) n. an adult (always in contradistinction to children)

growth (growth) n. the process of growing or developing 1. increase in size, to measure the growth of a plant over a period of a week 2. origin, development, cultivation, a custom of foreign growth 3. something growing or grown, a growth of beard 4. a morbid formation such as a cancer or tumor 5. adj. (securitizes) of investments expected to increase in value due to expansion of the industry or the company [GROW]

growth center a place that provides sensitivity training

growth fund (securities) a mutual investment fund with a goal of capital appreciation rather than income, esp. specializing in growth stocks

growth hormone "HUMAN GROWTH HORMONE

grouse "GROUSE"

Grozny (grozni): town in U.S.S.R., the capital (pop. 379,000) of the Checheno-Ingush A.S.S.R. in the N. Caucasus, the center of a great oil field

grub (grub) n. a maggot, caterpillar or any similar insect larva 1. (pop. fr. GRUB v.)

grub pres. part. grubbing past and past part. grubbed v.t. to dig or poke in the ground, to grub for roots 1. to search or work laboriously, grub through the old files 2. v.t. (with 'up' or 'out') to dig up or out 1. (with 'up' or 'out') to discover by laborious effort, grub up 2. to dislodge, grub out [prob. fr. O.E. *grubian*]

grubbed up 1. (of a person) in a state of being grubbed 2. (of a state) in a state of being grubbed

grubbed out 1. (of a person) in a state of being grubbed 2. (of a state) in a state of being grubbed

grubbing adj. bed-tempered, disagreeable [perh. rel. to GRUNT]

Grotenwald (grotnvaldt), Matthias Nithardt Gothardt (c. 1470-1528), German painter. He was the last and probably the greatest painter of the German Gothic school. He had probably seen Italian Renaissance painting. He used some of its techniques of realism to convey a spirituality which is entirely of the late Middle Ages. His greatest work is the Isenheim altar (c. 1516) now in the museum at Colmar

grubby (grubby) adj. (slang) run down, decrepit

grunt (grant) 1. v.i. (esp. of hogs) to make a low, gruff, snorting sound 2. (of persons) to make a similar sound, expressing discontent, tiredness, effort, irritation, boredom, self-satisfaction etc.

grunt at 1. to utter as if with grunts 2. n. a low grunt sound made by hogs or like that made by hogs 3. any of several large edible American marine fishes of fam. *Pomacodidae* (or *Hoemulidae*), which make grunting sounds when taken from the water 4. (slang) a private infantryman, esp. in Vietnam [O.E. *grunian* fr. *grunian*, to grunt]

grunt-work (gruntwork) n. (slang) menial labor performed in armed forces

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gruntwork

grub screw a very short headless screw used to prevent lateral movement

grubstake (grubstak) 1. n. money or supplies given to a mining prospector in return for a share of the profits 2. v.t. to give or loan for a person in difficult circumstances or for the launching of a business venture 3. pres. part. grubstaking past and past part. grubstaked to provide with a grubstake

Grub Street the world of hack writers | hack writers in general (after *Grub Street* (now Milton Street), London, formerly the home of many hack writers)

grudge (grudʒ) 1. v.t. pres. part. grudging past and past part. grudged to be reluctant to give, grant or allow (something) through envy, spite or meanness, to grudge someone's success 1. to resent (doing something), he grudges buying drinks for people who earn twice as much as he does 2. n. a feeling of resentment, envy or spite grudging adj. reluctant, forced, a grudging admission of responsibility [older gruch fr. M.E. *gruce*, *gruchche* fr. O.F. *grucher*, groucher, to grumble]

gruel (gruel) n. a very thin porridge for invalids and old people [O.F. = ground grain]

grueling, esp. Br. groueling (gruelin) 1. adj. severely testing, exhausting a grueling job 2. n. a harsh testing, questioning or punishing [fr. older gruel v.t. to punish by feeding with gruel]

gruesome (gruesəm) adj. ghastly, sickening, revolting, esp. associated with blood and murtality, a gruesome murder [Dun. *grisom*, cruel]

gruff (gruff) adj. (of the voice) hoarse, rough and harsh 1. (of speech or manner) blunt, almost surly, gruff thanks [prob. fr. Du. or L.G.]

gruga, groo-groo (grugru) n. any of several spiny palm trees of tropical America, esp. *Acrocomia sclerocarpa* of Brazil and *A. occidentalis* of the West Indies, which yield a yellow palm oil [Span., of Caribean origin]

grumble (grumbl) 1. v. pres. part. grumbeling past and past part. grumbled v.t. to complain in a persistent, bad-tempered way, show discontent 1. to make a low growling sound, rumble 2. v.t. to utter in a sullen complaining way, mutter surly 2. n. a complaint 1. something said in a nagging, complaining way 2. a low growling sound grumbler n. [prob. fr. Du. *gruwela*]

grume (grumə) n. a thick fluid, esp. a clot of blood [fr. L. *grumus*, a little heap]

Grumman T-28C (mil.) 1963-designed carrier-based, U.S. Navy fighter plane (F-14), used for protecting a strike force, clearing air space, and defending ships at sea

grummet (grumɪt) n. a metal eyelet used in canvas bags, tents, sails etc. to prevent fraying and tearing 1. (naut.) a ring of twisted rope etc. for fastening, wadding etc. [fr. F. *grumette*, curb of a bridle]

grumous (gruməs) adj. (bot.) containing or like grume 1. consisting of a cluster of granules or granules [fr. Mod. L. *grumosus*]

grumpily (grumpli): adv. in a grumpy manner

grumpiness (grumpiñs) n. the quality or state of being grumpy

grumpy (grumpi) adj. grumpier superl. grumpiest adj. bed-tempered, disagreeable [perh. rel. to GRUNT]

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CONCISE PRONUNCIATION KEY: (a) a, cat; (e) e, egg; (i) i, fish; (ai, tiger; æ, bird; ʌ, door; œ, bear. (o) o, cow; ɔ, goat; ʊ, poor; ɔɪ, royal. (ə), duck; ə, ball; ə, goose; ə, bocilist; ər, care. (ə), lot; ə, think; ə, brother; ə, Zen; ə, courage; ə, aware; ə, orangutan; ə, yak. (ə), fish; əf, fetch; ə, rabbit; ən, reddish. Complete pronunciation key appears inside front cover.